



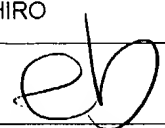
UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/923,949	08/08/2001	Kazuhiro Shimura	P100158-00040	2066
23353	7590	03/30/2004	EXAMINER	
RADER FISHMAN & GRAUER PLLC			MAKI, STEVEN D	
LION BUILDING			ART UNIT	
1233 20TH STREET N.W., SUITE 501			PAPER NUMBER	
WASHINGTON, DC 20036			1733	

DATE MAILED: 03/30/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/923,949	Applicant(s) SHIMURA, KAZUHIRO	
	Examiner Steven D. Maki	Art Unit 1733	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3,4 and 6 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 3, 4 and 6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

1) A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 3-8-04 has been entered.

2) The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3) Claims 1, 3, 4 and 6 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, the scope and meaning of "a second cavity disposed adjacent the first cavity as a reference" (emphasis added) is unclear. One of ordinary skill in the art is not reasonably appraised of the scope of protection afforded by this language. In particular, it is unclear what affect, if any, "as a reference" has on the scope of claim 1. It is unclear what type of reference is required. A reference for what? It is unclear if "as a reference" is merely a statement of intended use, which adds no further structure to the claimed tire. It is unclear if "as a reference" adds structure such as close proximity or same depth.

4) The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and

Art Unit: 1733

the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Awaya et al

5) **Claims 1, 3, 4 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Awaya et al (US 4226274) in view of Havens (US 2261025).**

Awaya et al discloses a wear indicator comprising colored rubber. A plurality of wear indicators may be arranged in a rib so as to be isolated from the circumferential grooves. See figure 6. At the tread surface, each wear indicator has a rectangular shape. See figure 6. Since each wear indicator has a triangular cross section (see for example figure 2), the surface shape of each wear indicator (and the v-shaped cavity in which it is disposed) continuously changes with wear of the tread. Awaya et al does not recite an isolated recess whose shape does not change with wear.

As to claim 1, It would have been obvious to one of ordinary skill in the art to use Awaya et al's wear indicators in a tread having isolated slits (second cavities) of constant length so as to obtain the benefit of the tread having means to indicate wear (Awaya et al) and means for increasing traction (Havens). The claimed first cavity reads on the v-shaped cavity in which the triangular portion of the wear indicator in the figure 6 embodiment of Awaya et al is located. The claimed second cavity reads on the slits of Havens. In claim 1, "adjacent" fails to require a proximity different than that between the wear indicators and slits suggested by Awaya et al and Havens. The description of "as a reference" (which appears to merely constitutes intended use) fails to require structure different from that suggested by Awaya et al and Havens. In claim 3, the limitation of the wall surfaces being colored reads on the colored triangular

Art Unit: 1733

section wear indicator being on the v-shaped walls. As to claim 4, the colored triangular section is buried in the v-shaped cavity since it fills the v-shaped cavity. As to claim 6, note that the wear indicator has a rectangular shape at the tread surface. Furthermore, it would have been obvious to form Havens slits with a quadrilateral shape since Havens teaches forms the slits as rectilinear slits.

Europe '113

6) Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Europe '113 (EP 250113) in view of German '833 (DE 3627833) and Japan '607 (JP 55-110608).

Europe '113, directed to wear indicators for tire treads, discloses a tire having groups of wear indicating grooves in the tread wherein (1) each wear indicating groove is isolated from the main grooves (i.e. the circumferential grooves) and (2) each wear indicating groove has a surface shape which is constant as the tread wears. Europe '113 teaches using a wear indicating groove "as a reference" for another wear indicating groove since Europe '113 teaches detecting uneven wear by comparing the appearance of the different groups of isolated wear indicating grooves. Europe '113 does not recite providing at least one of the wear indicating grooves with a surface shape, which continuously changes with wear. However, it would have been obvious to one of ordinary skill in the art to provide at least one of Europe '113's isolated wear indicating grooves with a slanted bottom surface such that its surface shape continuously changes with wear since (1) German '833, also directed to wear indicators for tires, teaches slanting a bottom surface of a wear indicating groove for the advantage of providing

continuous indication of the state of wear of the tread and (2) Japan '608, also directed to wear indicators for tires, teaches that an isolated wear indicating recess may have a changing surface shape.

7) Claims 3, 4 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Europe '113 in view of German '833 and Japan '607 as applied above and further in view of Bins (US 3833040).

As to claims 3, 4 and 6, it would have been obvious to one of ordinary skill in the art to color the wall surfaces of the isolated wear indicating grooves with a different color than that of surrounding rubber since Bins, directed to indicating wear of a tire tread, suggests coloring groove walls with a layer of colored material so that when the color wears off, the user knows that the tread / tire should be replaced. The claimed quadrilateral shape set forth in claim 6 would have been obvious since Europe '113 teaches using elongated isolated wear indicating grooves and German '833 shows a rectangular surface shape as being suitable elongated shape for a wear indicating groove. Claim 4 fails to require the colored member to be only at the bottom of the cavity.

8) Claims 3, 4 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Europe '113 in view of German '833 and Japan '607 as applied above and further in view of French (RE 30518).

As to claims 3, 4 and 6, it would have been obvious to one of ordinary skill in the art to bury a colored member of different color from that of the surrounding rubber in the isolated wear indicating grooves since French suggests locating a strip of colored

Art Unit: 1733

material at the bottom of a wear indicating slot in order to facilitate observation of a wear indicating warning. The claimed quadrilateral shape set forth in claim 6 would have been obvious in view of Europe '113's teaching to use elongated isolated wear indicating grooves and German '833 shows a rectangular surface shape as being suitable elongated shape for a wear indicating groove. Claim 3 fails to require the entire surface of the walls (in contrast to only the lowermost portion thereof) to be colored.

Remarks

9) Applicant's arguments with respect to claims 1, 3, 4 and 6 have been considered but are moot in view of the new ground(s) of rejection.

Applicant's arguments filed 1-22-04 with respect to the claims entered via the RCE filed 3-8-04 have been fully considered but they are not persuasive.

Applicant's arguments relating to "as a reference" and the combination of Awaya et al and Havens are not persuasive since "as a reference" fails to require the second cavity to have a function as a wear indicator. In any event: note the new ground of rejection using Europe '113 and German '823.

The references cited of the PTO 892 are of interest for their disclosure relating to "as a reference".

10) No claim is allowed.

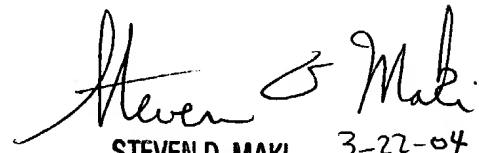
11) Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven D. Maki whose telephone number is (571) 272-1221. The examiner can normally be reached on Mon. - Fri. 7:30 AM - 4:00 PM.

Art Unit: 1733

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on (571) 272-1226. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Steven D. Maki
March 22, 2004


STEVEN D. MAKI 3-22-04
PRIMARY EXAMINER
~~GROUP 1300~~
Av 1733